



# Achieving Data Interoperability with Emergency Data eXchange Language (EDXL) Messaging Standards

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# Disaster Management eGov Initiative Background

- Presidential eGovernment Initiative  
DHS/ Science and Technology Directorate
- Improving national capability through information availability
- Four components:
  - Portal (disasterhelp.gov),
  - DMIS incident management tools,
  - Interoperability backbone (OPEN) and
  - **Data messaging standards (EDXL)**

# The Problem

- Organizations & Systems cannot easily share incident information
  - 100,000 emergency response related agencies
  - Multiple vendor products
  - Some have no data standards
  - Some have their own (internal) data standards
- Cannot change everyone's system/data to “speak the same electronic language”

# The Need

- **Seamlessly** share incident related information
- Information displayed in format user is comfortable with
- Leverage existing standardization efforts
- *Messaging* versus *data* standards
- Requirements need to come from end users

# **The Solution:**

## **A Public/Private Partnership for EDXL Messaging Standards**

- **What is EDXL?**
  - A set of technical rules governing how incident related information should be packaged for exchange
- **How is it implemented?**
  - Software vendors change their products to be able to receive and send information using these standards
- **What is the value?**
  - Any compliant software products can exchange information and display and work with it in their own native way

# The Bottom Line

Development and adoption of EDXL messaging standards will allow people to seamlessly share and use information about incidents.



# EDXL Scope

- Business Process-Driven
  - Emergency Response & Management
    - Incidents, Disasters, every day events
  - Accomplish specific mission tasks (e.g. “Request Resource”)
- Customers
  - The emergency response communities at the Local, State, Tribal, and Federal levels

# EDXL Focus

- Ability to exchange/share information
  - Bridging gap between systems and orgs
- Public Messaging STANDARDS
  - “Interface spec” between systems and humans regardless of data differences
- *Facilitating*, not producing...
- Open Architecture – adopt & implement
- Low cost approach
  - Build once - use many
  - Leverage existing standards efforts



# EDXL Value

- Practitioner-driven (end users)
- Bridge gap between different software products
  - Information sharing between diverse and proprietary systems
- Focused on specific mission tasks and processes
  - Message exchanges in a clear functional context
- Standard messages streamline the process
  - Enable efficient preparedness and response
  - Minimize the loss of life and property
- One-to-many communications without knowing recipients
- Reduce voice communication redundancies
  - E.g. Multiple resource requests / dispatches due to unintended cross-over of communication

## Current Status

- Common Alerting Protocol (CAP) adopted, demonstrated and Implemented
- Distribution Element (DE)
  - OASIS Public Comment completed
  - Finalizing for vote as a public standard
- Resource Messaging (RM)
  - Adopted by OASIS sub-committee and in-progress
  - Draft incorporated into NIEM 0.2 pilot
  - NIEM 0.2 draft supporting pilot implementation of National Capital Region Data Exchange Hub
- Hospital Availability (HAVE)
  - Submitted to OASIS

# What does this mean to you?

- **Now:** Alerting messages can be sent across software and hardware systems
- **Coming soon:** enhanced ability to send any content
- **Later this year:** can exchange resource messages ie requests, etc and information on hospital bed availability
- More standards to be developed this year



# Groups Involved To Date

- Emergency management
- Fire
- 9-1-1, dispatch
- Transportation
- EMS/emergency medicine
- Public health
- Federal emergency agencies
- Supporting vendor communities

# What Can You Do?

- Support the effort
  - Spread the word
  - Demand participation by your vendors
  - Start using the capability in daily work
- Opportunity for Involvement
  - Provide input on Priorities
  - Standards Working Group
  - Pilots and Demos



# Questions?

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